



CITY OF LODI

COMMUNICATION COUNCIL C

AGENDA TITLE: Acacia Street and Washington Street - Intersection Control, Resurvey

MEETING DATE: October 2, 1991

PREPARED BY: Public Works Director

RECOMMENDED ACTION: No Action

BACKGROUND INFORMATION: At the August 21, 1991 City Council meeting, a citizen expressed a concern regarding speed control on South Washington Street in the vicinity of Acacia Street. At that meeting City Council directed Public Works staff to resurvey this location for four-way stops. This location was previously studied for four-way stops at the request of citizens in the area (by petition) and was presented to City Council at the January 2, 1991 meeting. Four-way stop guidelines (Caltrans) were not satisfied, however, Council did approve the conversion from yield signs to stop signs on Acacia Street at Washington Street.

Another concern expressed at that meeting was the slight alignment offset of Washington Street at Acacia Street. At the February 20, 1991 meeting, City Council approved the modification of the street centerlines on Washington Street at Acacia Street to provide a smoother transition through the intersection. This work was completed in March of 1991.

Staff reviewed accidents on the segment of Washington Street from Kettleman Lane to Watson Street. Two-way traffic is permitted along the entire length of this segment with the exception of the portion between Concord Street and Poplar Street which is one-way for southbound traffic.

A review of available accident records on the segment of Washington Street from Kettleman Lane to Watson Street indicates there has been two accidents since the previous study in January. In total, from 1987 to the present there have been eleven accidents in this segment (Exhibit A). None of these accidents were identified as being speed related. Poplar Street was the only intersection in this segment of Washington Street with accidents (right angle) that would be correctable with the installation of four-way stops. These two accidents occurred in 1987 and both involved westbound drivers failing to yield to southbound vehicles. No accidents have occurred at this intersection since the yield signs were changed to stop signs.

Staff previously surveyed vehicle speeds on Washington Street over a three-day period from July 18-20, 1989. The results of this survey are shown on Exhibit B.

APPROVED.

THOMAS A. PETERSON

recycled paper

Resurvey Results

As shown on the attached Exhibit C, Caltrans guidelines for the installation of four-way stops are not satisfied at this location. There have been no accidents correctable with the installation of four-way stops at this intersection and traffic volumes are far below the required minimums. The volume split on Washington Street and on Acacia Street is 68% and 32%, respectively. Ideally, volume splits at four-way stop locations should be equal. Four-way stop warrants were also performed for the intersection of Poplar Street and Washington Street as part of a 1989 study. Correctable accidents and traffic volumes were far below the required minimums at this location also. Council did approve the conversion from yield to stop controls on Poplar Street at Washington Street at that time. Since the time of this study, there have been no additional correctable accidents.

The result of staff's survey of vehicle speed for approximately 1,600 vehicles on Washington Street in the vicinity of Acacia Street indicates that 92% of the motorists drive 31 mph or less and 63% at 25 mph or below. This is not unusual for streets with 25 mph speed limits.

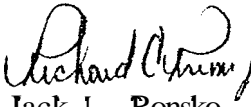
Discussion

As Council is aware, studies indicate that the installation of stop signs has little or no effect on reducing overall vehicle speeds except at the immediate vicinity of the stop sign. In many cases, speeds will increase on segments adjacent to stop signs as drivers will attempt to "make-up" travel time after having to stop at an unwarranted stop sign. In addition to an increase in speeds, unneeded stop signs may increase accidents (particularly rear-end accidents), waste time and energy, create air and noise pollution, and encourage noncompliance at needed stop signs.

Recommendation

Based on the study results and the proven ineffectiveness of stop signs used for speed control, staff does not recommend the installation of four-way stop signs at Acacia Street and Washington Street or any other intersection along this segment. Increased enforcement is the most effective way to control excessive speeds. The speed data used in this study will be sent to the Police Department for their review.

FUNDING: None.


for Jack L. Ronsko
Public Works Director

Prepared by Rick S. Kiriu, Senior Engineering Technician

JLR/RSK/n1

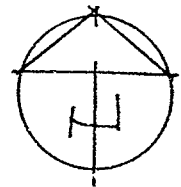
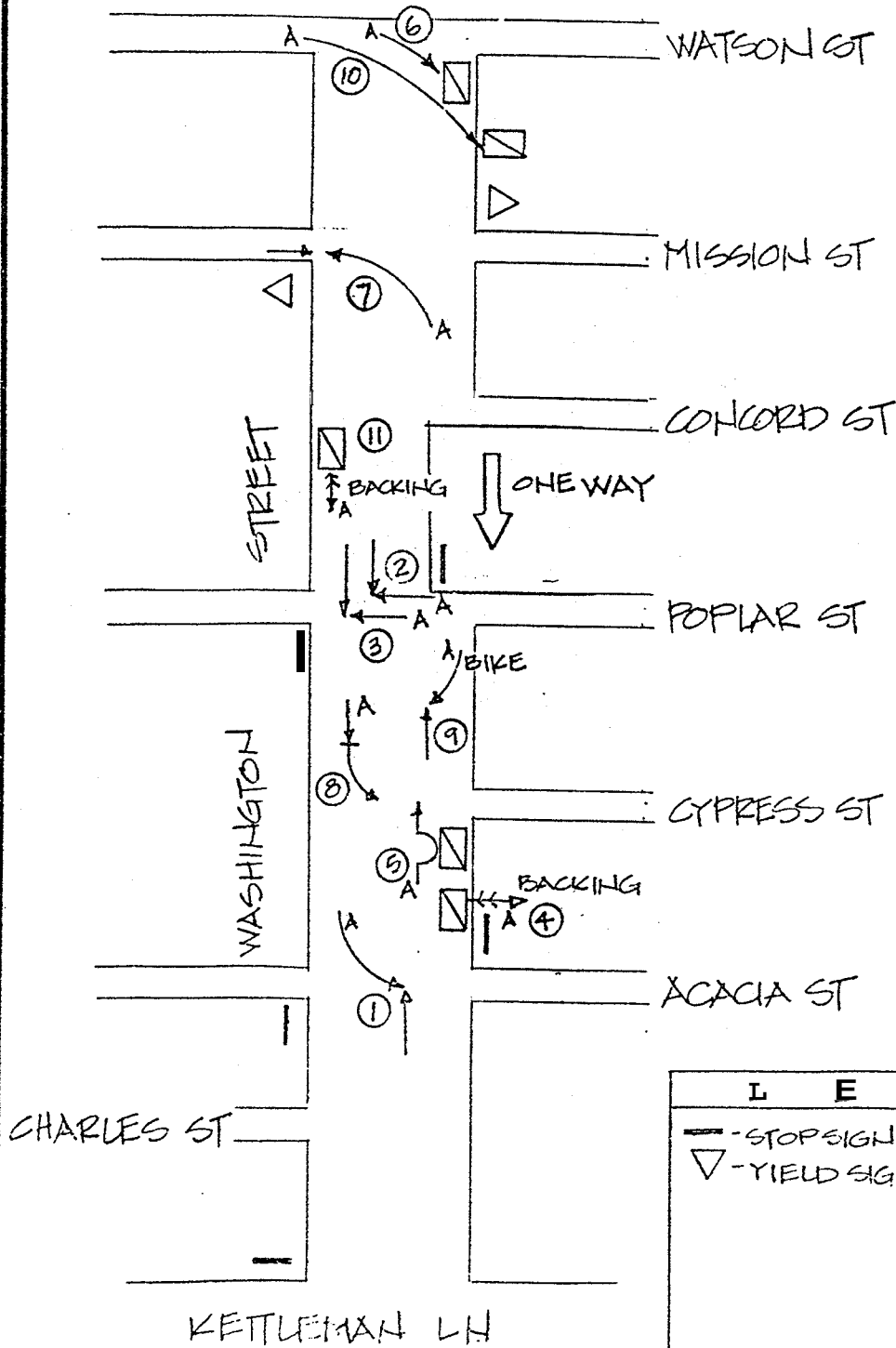


CITY OF LODI

PUBLIC WORKS DEPARTMENT

WASHINGTON STREET
WATSON TO KETTLEMAN
- COLLISION DIAGRAM -
- EXISTING TRAFFIC CONTROLS -

1987 - AUG 1991



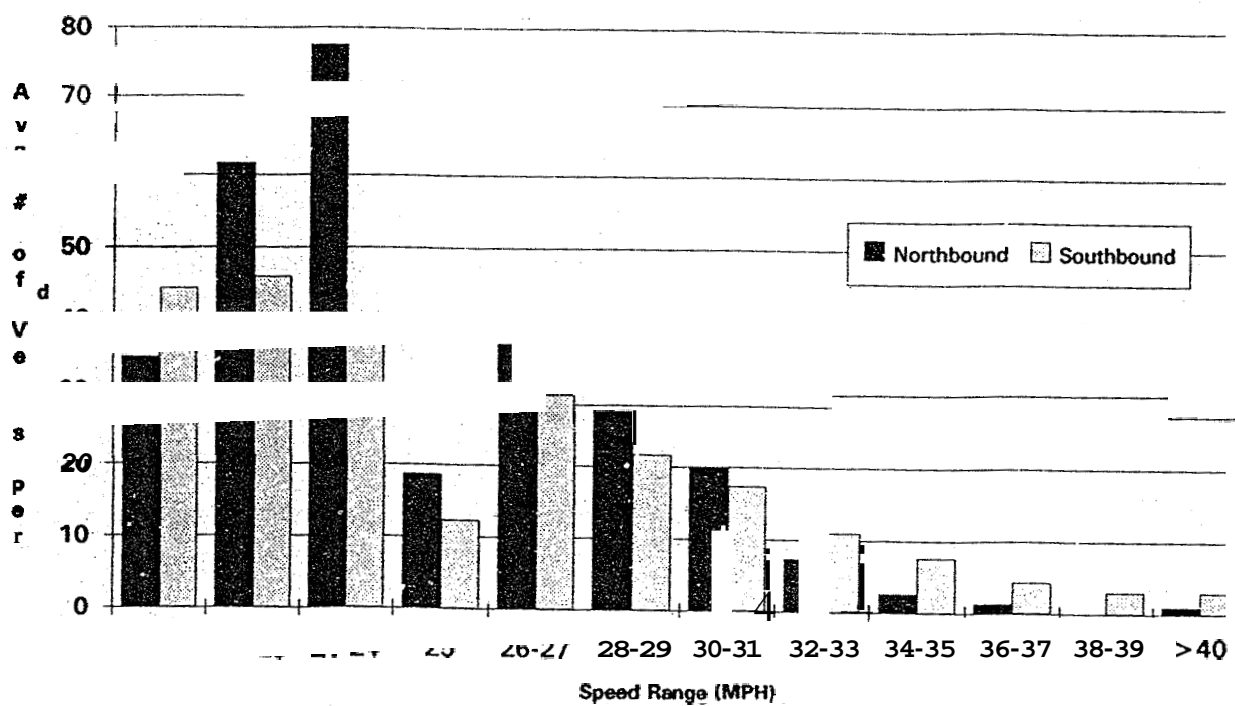
L E G E N D	
— STOP SIGN	← PATH OF VEH
▽ YIELD SIGN	↔ REAR END
	↔ SIDESWIPE
	◻ PARKED VEH

LOCATION: WASHINGTON-WATSON PKET YEAR(S): 1987-AUG 1991

[illegible]

DATE:_____

Washington St @ Acacia St
Speed Survey
July 18-20, 1989



CHTWASH1.XLC

Exhibit B



CITY OF LODI

PUBLIC WORKS DEPARTMENT

MULTI-WAY STOP SIGN
WARRANTS
 INTERSECTION OF ACACIA STREET and WASHINGTON STREET
 DATE SEPT 13, 1990 BY R. KIRILU

Any of the following conditions may warrant a multi-way STOP sign installation,

1. Where traffic signals are warranted and the need is urgent, the four-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation,

 Satisfied _____ Not Satisfied ☒

2. An accident problem, as indicated by five or more reported accidents of a type susceptible of correction by a multi-way stop installation in a 12-month period. Types of accidents susceptible of correction include right angle and left turn collisions.

 Time period 1990 Number of correctible accidents 0
 Total number of accidents 0 Satisfied _____ Not Satisfied ☒

3. Minimum volume warrant:

- a. The total vehicular volume entering the intersection from all approaches must average at least 500 vehicles per hour for any eight hours of an average day, and

Hour		11 ^N	12 ^N	1 ^N	2 ^N	3 ^N	4 ^N	5 ^N	6 ^N	7 ^N	8 ^N
Major Street %?		30	40	55	59	36	32	29			
Minor Street		17	18	17	32	19	12	17	19		

 Highest 8 hours _____ a.m. to _____ p.m.
 Total volume 465 vehicles _____
 Average per hour 58 vehicles

- b. The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same eight hours with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour.

Hour		11 ^N	12 ^N	1 ^N	2 ^N	3 ^N	4 ^N	5 ^N	6 ^N	7 ^N	8 ^N
Minor Street Vehicles		17	18	17	32	19	12	17	19		
Pedestrians*											

*1,449 PEDS REQ'D TO SATISFY

 Highest 8 hours _____ a.m. to _____ p.m.
 Average per hour 19 vehicles
 Average per hour _____ pedestrians (EST)
 Average units per hour _____
 Satisfied _____ Not Satisfied ☒

4. When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum vehicular volume warrant is 70 percent of the above requirements.

 85-percentile speed _____ MPH
 Satisfied _____ Not Satisfied ☒

A four-way STOP sign installation is a useful traffic control measure when other available means of control are not adequate. It should not be used unless the volume of traffic on the intersecting roads is about equal and is undesirable at low volume intersections.

 % Traffic major street 68 % 556 VPD
 % Traffic minor street: 32 % 260 VPD

CITY COUNCIL


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JAMES W. PINKERTON, Jr.
Mayor Pro Tempore
PHILLIP A. PENNINO
JACK A. SIEGLOCK
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CITY OF LODI

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September 26, 1991

THOMAS A. PETERSON
City Manager
ALICE M. REIMCHE
City Clerk
BOB McNATT
City Attorney

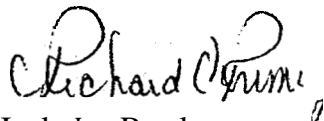
Mr. Ken Krentz


SUBJECT: Acacia Street and Washington Street -
Intersection Control, Resurvey

Enclosed is a copy of background information on an item that will be discussed at the City Council meeting on Wednesday, October 2, 1991, at 7:30 p.m. The meeting will be held in the City Council Chamber, Carnegie Forum, 305 West Pine Street. You are welcome to attend.

If you wish to communicate with the City Council, please contact Alice Reimche, City Clerk, at (209) 333-6702.

If you have any questions about the item, please call Paula Fernandez, Richard Prima or me at (209) 333-6706.



Jack L. Ronsko
Public Works Director

JLR/lm

Enclosure ✓

cc: City Clerk